FIG.1 PRIOR ART

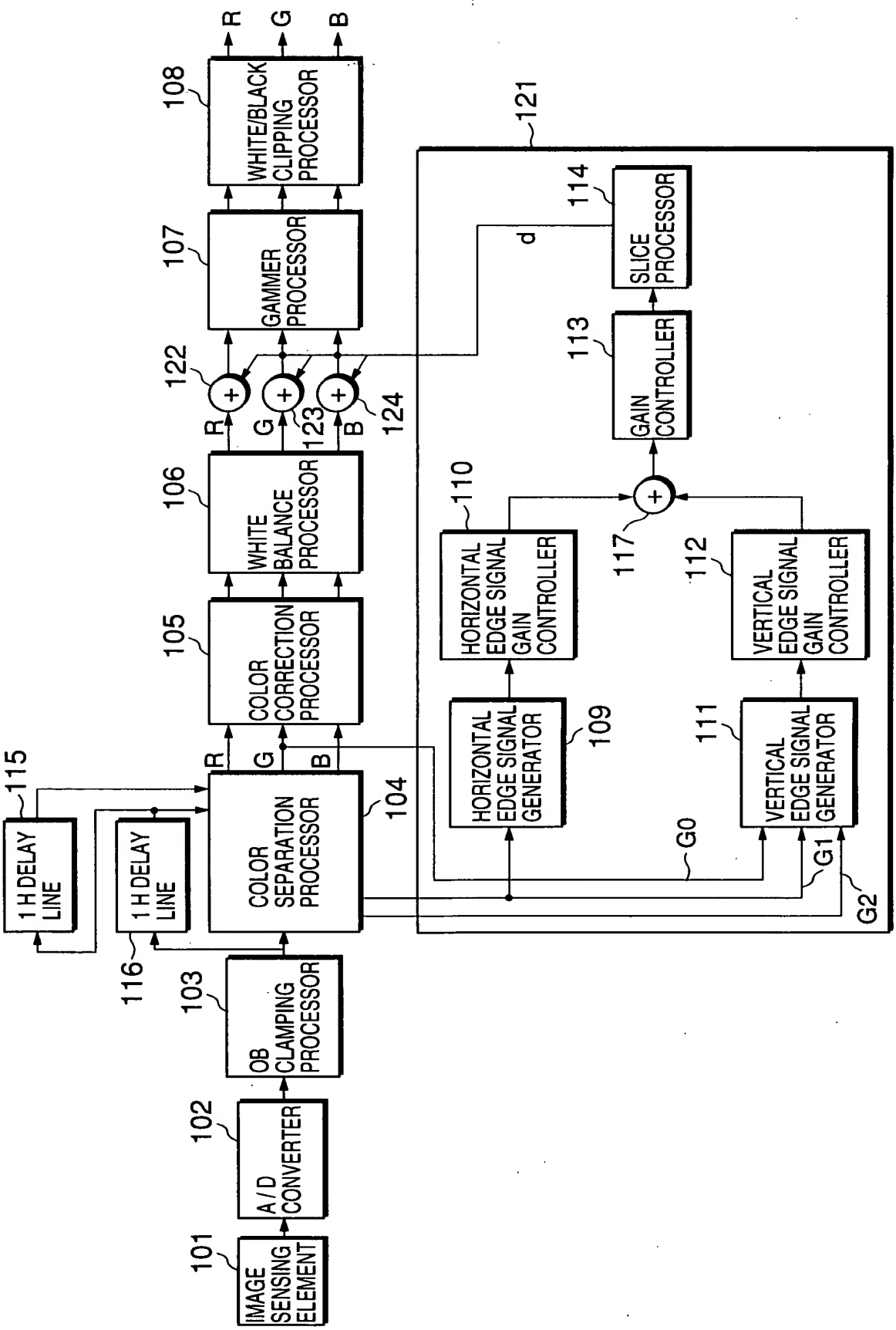

FIG.2
PRIOR ART

G	B	G	B	G	— GB LINE
R	G_1	R_2	G_3	R	— GR LINE
G	B_4	G_5	B_6	G	— GB LINE
R	G_7	R_8	G_9	R	— GR LINE
G	B_{10}	G_{11}	B_{12}	G	— GB LINE

FIG.3
PRIOR ART

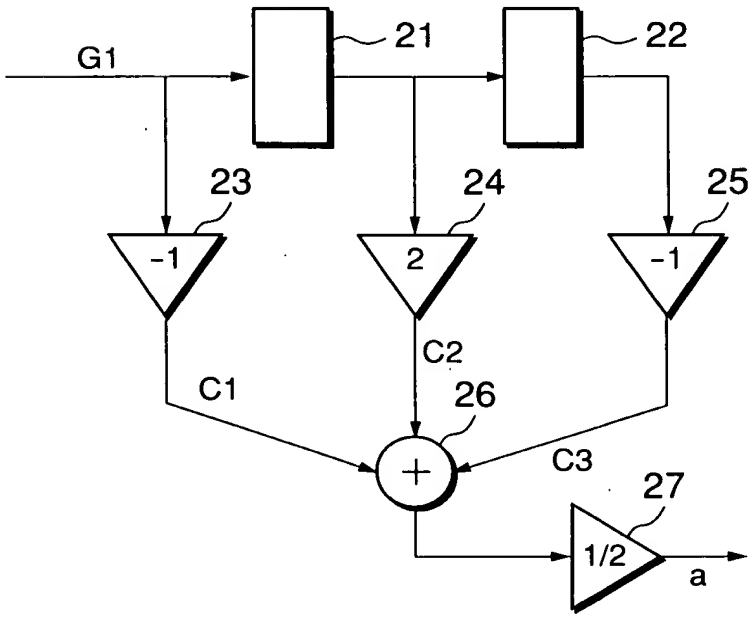

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FIG.4
PRIOR ART

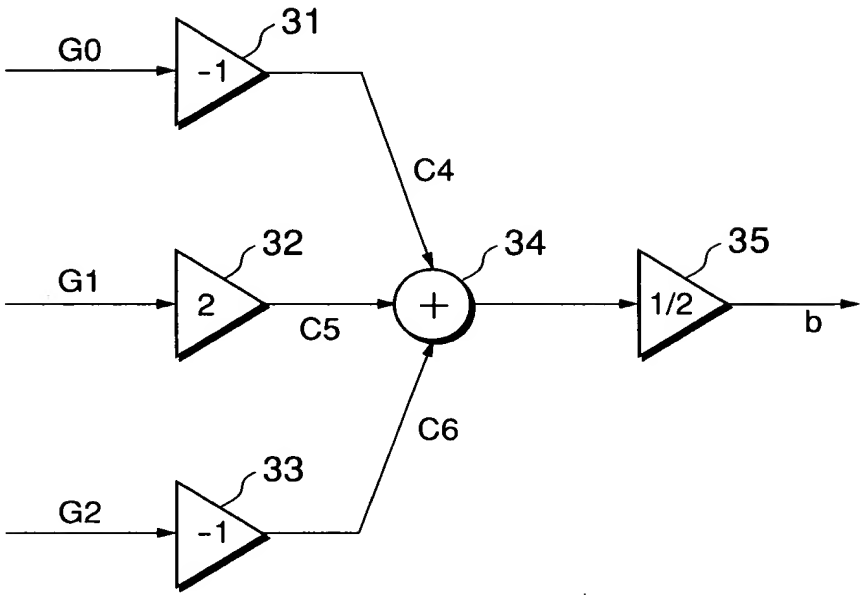

FIG.5
PRIOR ART

0 G	0 B	0 G	255 B	255 G
0 R	0 G	0 R	255 G	255 R
0 G	0 B	0 G	255 B	255 G
0 R	0 G	0 R	255 G	255 R
0 G	0 B	0 G	255 B	255 G

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FIG.6
PRIOR ART

0 G	0 B	-128 G	-128 B	0 G
0 R	0 G	64 R	64 G	0 R
0 G	0 B	-128 G	-128 B	0 G
0 R	0 G	64 R	64 G	0 R
0 G	0 B	-128 G	-128 B	0 G

EP 0 750 434 A2

FIG.7

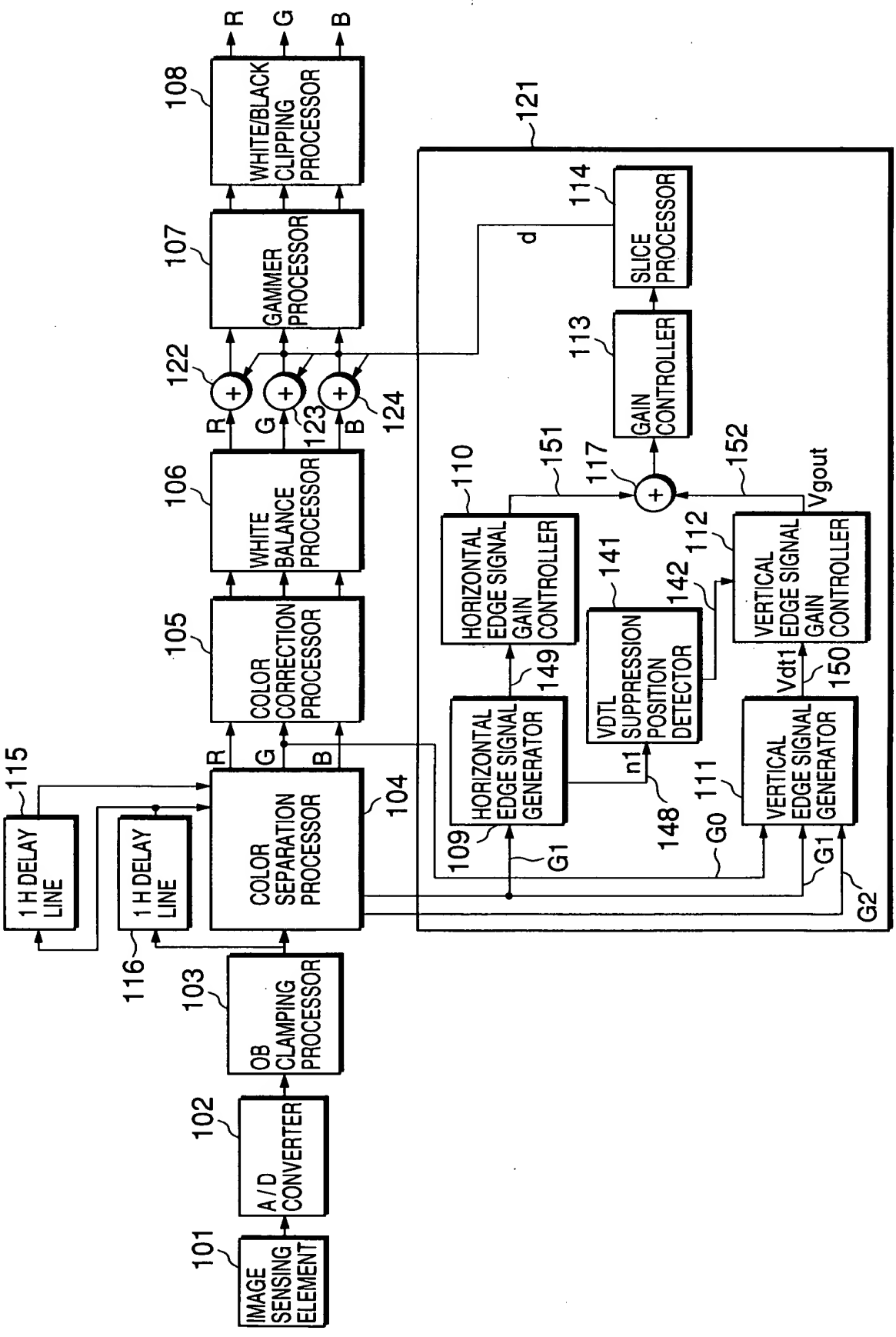
IMAGE SENSING ELEMENT
101
A/D CONVERTER
102
OB CLAMPING PROCESSOR
103
COLOR SEPARATION PROCESSOR
104
COLOR CORRECTION PROCESSOR
105
WHITE BALANCE PROCESSOR
106
GAMMER PROCESSOR
107
WHITE/BLACK CLIPPING PROCESSOR
108
1 H DELAY LINE
115
1 H DELAY LINE
116
HORIZONTAL EDGE SIGNAL GENERATOR
109
HORIZONTAL EDGE SIGNAL GAIN CONTROLLER
110
VERTICAL EDGE SIGNAL GENERATOR
111
VERTICAL EDGE SIGNAL GAIN CONTROLLER
112
GAIN CONTROLLER
113
SLICE PROCESSOR
114
VDTL SUPPRESSION POSITION DETECTOR
141
121
122
123
124
117
151
152
149
150
148
142
R
G
B
d
n1
G0
G1
G2
Vdt1
Vgout

FIG.8

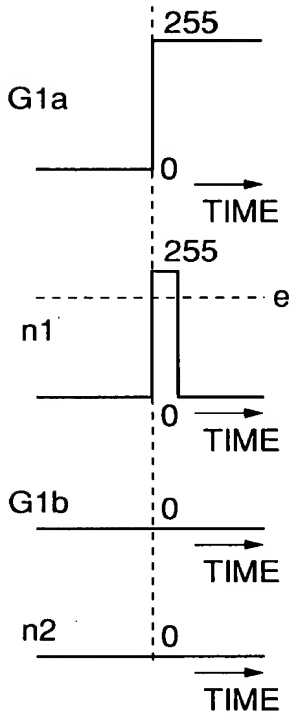

FIG.9

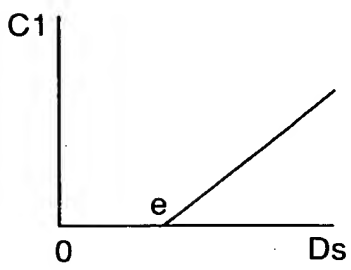

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FIG.10

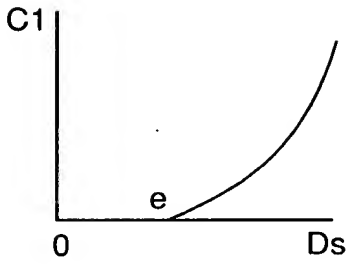


FIG.11

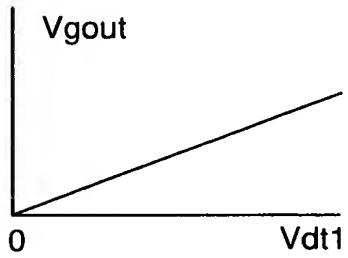
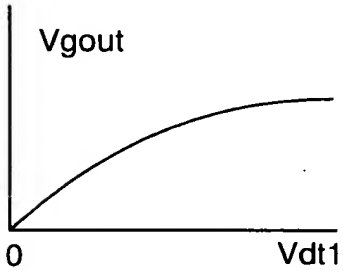


FIG.12



EP 0 707 305 B1

FIG.13

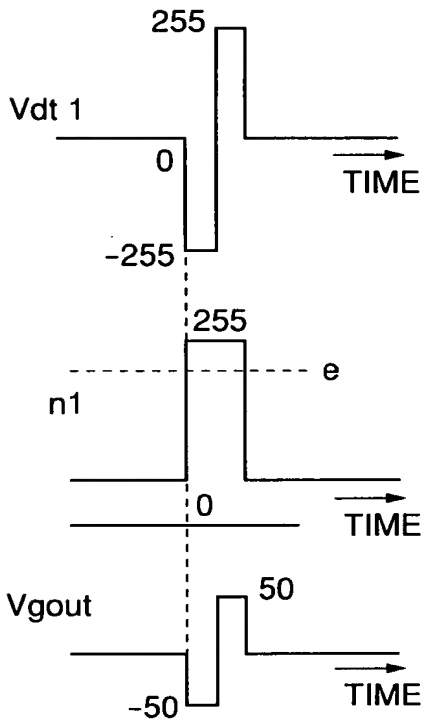


FIG.14

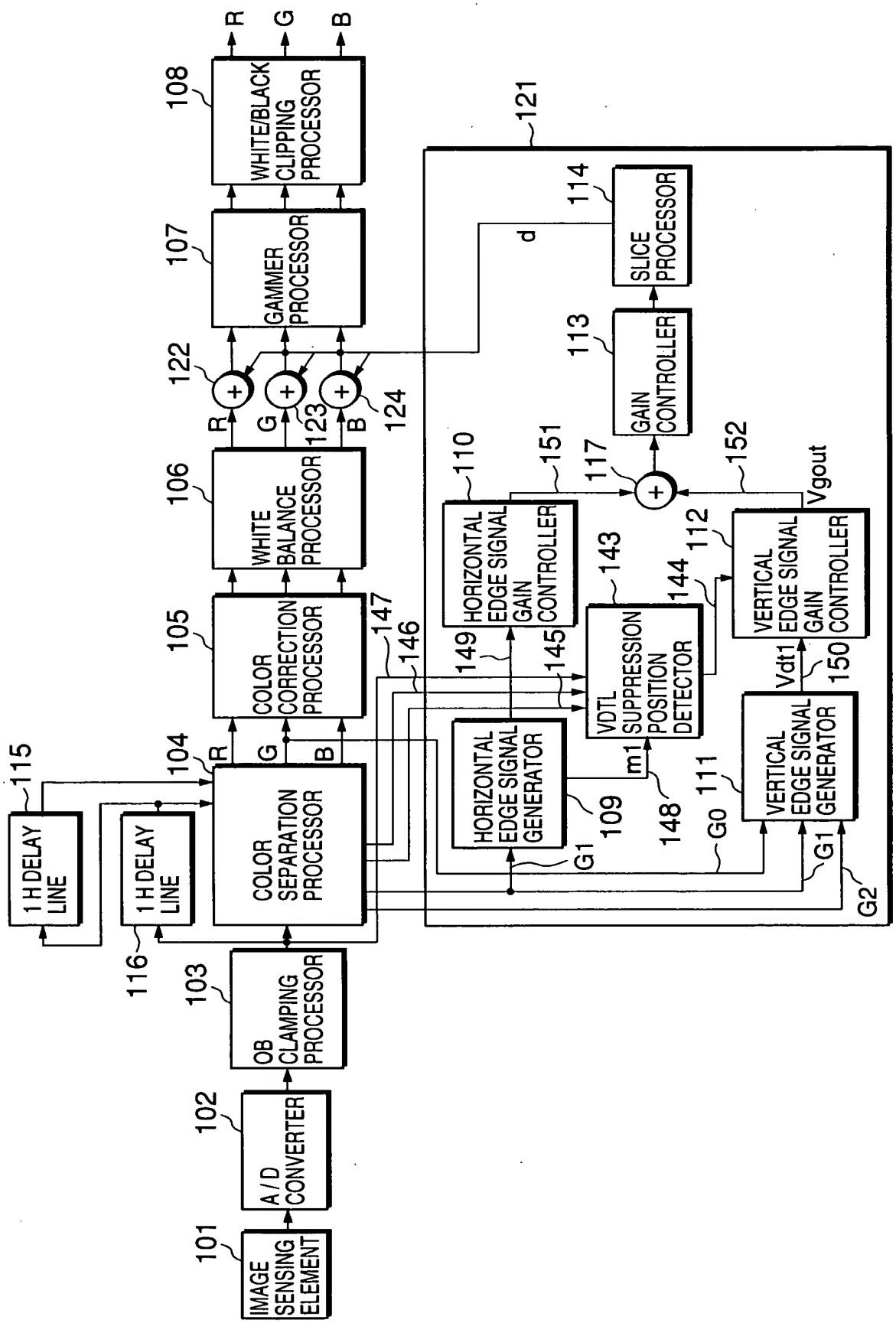


IMAGE SENSING ELEMENT
101
A/D CONVERTER
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OB CLAMPING PROCESSOR
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COLOR SEPARATION PROCESSOR
104
1 H DELAY LINE
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1 H DELAY LINE
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COLOR CORRECTION PROCESSOR
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WHITE BALANCE PROCESSOR
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GAMMER PROCESSOR
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HORIZONTAL EDGE SIGNAL GAIN CONTROLLER
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HORIZONTAL EDGE SIGNAL GENERATOR
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VDTL SUPPRESSION POSITION DETECTOR
143
VERTICAL EDGE SIGNAL GAIN CONTROLLER
112
VERTICAL EDGE SIGNAL GENERATOR
111
Vdt1
150
117
151
152
Vgout
m1
148
G0
G1
G2
145
146
147
149
144

FIG.15

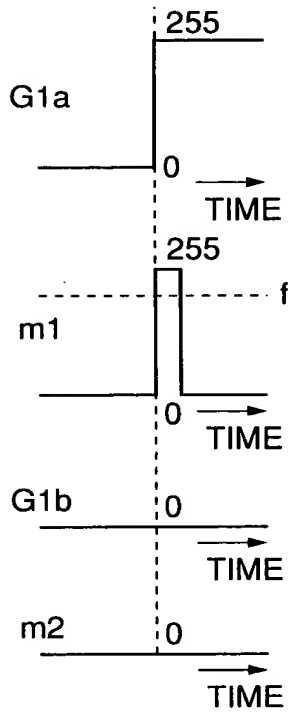

FIG.16

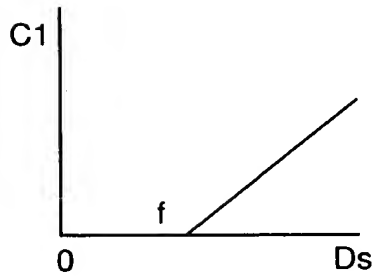

FIG.17

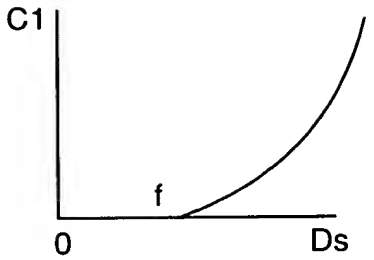

FIG.18

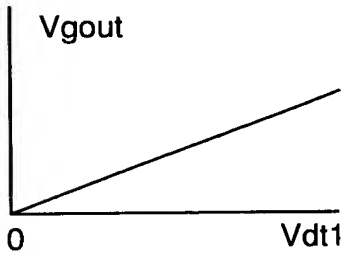

FIG.19

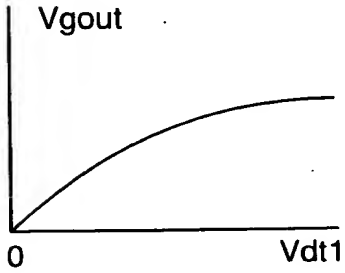

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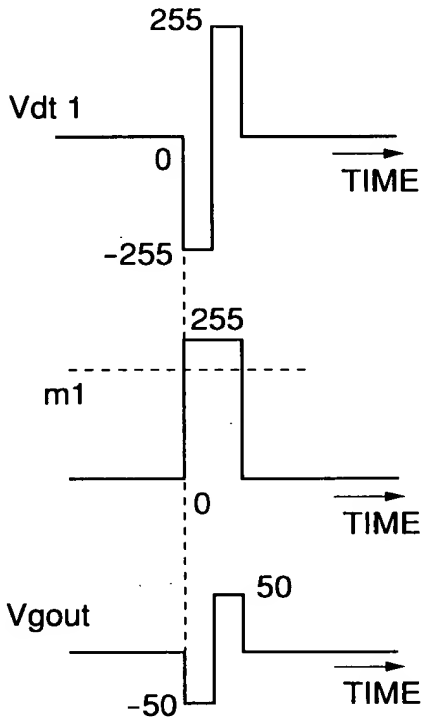
FIG.20



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